

**Notice of Allowability**

Application No.

09/998,773

Examiner

Joseph D. Anthony

Applicant(s)

YANG ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the letter dated 03/30/04.
2. ☒ The allowed claim(s) is/are 1-10, and 35-41 [renumbered as 1-10, and 11-17].
3. ☒ The drawings filed on 30 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Joseph D. Anthony  
Primary Examiner  
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### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephanie A. Wardwell on 06/14/04.

The application has been amended as follows:

In claim 38, line 1, delete "31" and insert therefor --35--.

Non-elected claims 11-~~34~~ have been canceled.

2. The following is an examiner's statement of reasons for allowance: Applicant's claimed oxygen barrier composition is deemed to be both novel and unobvious over the cited prior-art because none of the cited prior-art reference teach or suggest applicant's claimed oxygen barrier copolymer that comprises: (1) at least about 50 mole% of repeating units derived from vinylidene chloride and (2) at least about 2 mole% of repeating units comprising a cycloalkenyl oxygen scavenging group. The cited prior-art references are full of disclosures to employing oxygen barrier polymers, such as polyvinylidene chloride. Likewise, the cited prior-art references are full of disclosures to

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employing oxygen scavenging polymers/copolymers that comprise repeating units comprising a cycloalkenyl oxygen scavenging group. Nevertheless, the prior-art references neither teach nor suggest applicant's claimed copolymer comprising both oxygen barrier and oxygen scavenger properties. Some of the most representative prior-art references are specifically cited below.

A) Jerdee et al. U.S. Patent Number 6,333,087 teaches oxygen scavenging polymers in compositions used to make packages. The oxygen scavenging polymers/copolymers comprise an ethylenic polymeric backbone linked through a linking group to oxygen scavenging cyclic olefinic pendent group, see column 4, line 37 to column 5, line 18. There is no disclosure nor a suggestion of any kind, to make an oxygen scavenging polymer/copolymer that comprises repeating  $[-CH_2-CCl_2-]$  units in the polymeric backbone in leu of the disclosed ethylenic backbone repeating units.

B) McKnight U.S. Patent Number 6,682,791 087 teaches oxygen scavenging polymers in compositions used to make packages. The oxygen scavenging polymers/copolymers comprise an ethylenic polymeric backbone linked through a linking group to oxygen scavenging cyclic olefinic pendent group. A disclosed example of such an oxygen scavenging polymer is ethylenecyclohexenylmethyl acrylate copolymer (ECHA), see column 11, lines 1-24. There is no disclosure nor a suggestion of any kind, to make an oxygen scavenging polymer/copolymer that comprises repeating  $[-CH_2-CCl_2-]$  units in the polymeric backbone in leu of the disclosed ethylenic backbone repeating units.

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C) Cai et al. U.S. Patent Number 6,527,976 087 teaches oxygen scavenging polymers in compositions used to make packages. The oxygen scavenging polymers/copolymers comprise an ethylenic polymeric backbone linked through a linking group to oxygen scavenging cyclic olefinic pendent group, see column 4, line 36 to column 7, line 18. There is no disclosure nor a suggestion of any kind, to make an oxygen scavenging polymer/copolymer that comprises repeating  $[-CH_2-CCl_2-]$  units in the polymeric backbone in lieu of the disclosed ethylenic backbone repeating units.

D) Yang et al. US 2004/0058178 A1 087 teaches oxygen scavenging polymers in compositions used to make packages. The oxygen scavenging polymers/copolymers comprise a modified ethylene vinyl alcohol polymer/copolymer comprising an oxygen scavenging cyclic olefinic pendent group, see section [0012] through section [0026]. There is no disclosure nor a suggestion of any kind, to make an oxygen scavenging modified ethylene vinyl alcohol polymer/copolymer that comprises repeating  $[-CH_2-CCl_2-]$  units in the polymeric backbone.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Prior-Art Cited But Not Applied***

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3. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

***Examiner Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



**Joseph D. Anthony**  
**Primary Patent Examiner**  
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6/14/04